

Remarks

Claims 1-37 were pending in the subject application. By this Amendment, claim 20 has been amended, and claims 1-19 and 26-37 have been cancelled. The undersigned avers that no new matter is introduced by this amendment. Entry and consideration of the amendments presented herein is respectfully requested. It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of the applicants' agreement with or acquiescence in the Examiner's position. Accordingly, claims 20-25 are currently before the Examiner for consideration.

The Office Action indicates that the title is not relevant to the claimed subject matter. By this Amendment, the applicants have amended the title to read "Trityl Mass-Tags for Calibrating Mass Spectrometers".

Claims 20 and 22-25 have been rejected under 35 U.S.C. §112, second paragraph, as indefinite. The applicants respectfully submit that the claimed subject matter is not indefinite. However, in order to expedite prosecution of the subject application, the applicants have amended claim 20 to recite that mixture (a) and mixture (b) have molecular masses extending across different ranges. Thus, mixture (a) and mixture (b) are different. Support for this amendment can be found, for example, at page 6, lines 21-36, of the subject specification. Referring to claims 23 and 24, the Office Action indicates that it is not clear "how two mixtures are packaged into three or five packages". The applicants submit that dependent claims 23 and 24 are clear in view of independent claim 20, which recites that the set of calibration compounds comprises at least two separately packaged mixtures. Thus, claims 24 and 25 further require "at least three separately packaged mixtures" and "at least five separately packaged mixtures", respectively. The applicants respectfully submit that one of ordinary skill in the art, when reading the claims in light of the specification, can ascertain with a reasonable degree of precision and particularity the area set out and circumscribed by independent claim 20 and dependent claims 22-25. Accordingly, in view of the foregoing remarks and the amendment to claim 20, reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 20 and 22-25 have been rejected under 35 U.S.C. §103(a) as being obvious over Shchepinov *et al.* (Innovation and Perspectives in Solid Phase Synthesis, Int. Symposium, 1999) or Berlin *et al.* (*Org. Mass Spectr.*, 1969, 2:447-466). The applicants respectfully submit that the claimed set of calibration compounds are not obvious in view of the cited references, taken individually or in combination.

Neither the Shchepinov *et al.* abstract nor the Berlin *et al.* abstract teach or suggest using trityl compounds as calibration material in a mass spectrometry procedure. The Shchepinov *et al.* abstract concerns the use of trityl tags to encode combinatorial oligonucleotide synthesis, in which differently sized tags are used to label bases at each step of a synthesis reaction, allowing identification by mass spectrometry. The Berlin *et al.* abstract discloses subjecting trityl substituted compounds to mass spectrometry, and a mechanism for the decay for the trityl cation is presented. The methods disclosed by the cited references require a pre-calibrated mass spectrometer and it is not obvious that the trityl compounds can themselves be used as calibration compounds. The Office Action acknowledges that the Schepinov *et al.* and Berlin *et al.* abstracts do not teach separately packaged mixtures of calibration compounds. As indicated above, by this Amendment, the applicants have amended claim 20 to recite that mixture (a) and mixture (b) have molecular masses extending across different ranges. The cited references do not teach or suggest the separately packaged mixtures (a) and (b), having molecular masses extending across different ranges as now recited in claim 20.

It is well settled that to establish a *prima facie* case of obviousness, "either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The cited references do not teach or suggest a set of calibration compounds for mass spectrometry comprising at least two separately packaged mixtures (a) and (b), as currently recited in the claims. Accordingly, in view of the foregoing remarks and the amendment to claim 20, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

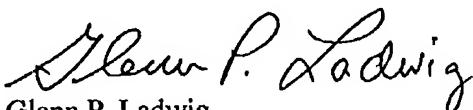
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Serial No. 10/804,983

In view of the foregoing remarks and amendments to the claims, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

The applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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